

ELECTRIC MOTOR WITH ENCODER

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ABSTRACT OF THE DISCLOSURE

10 An assembly of electric motor with encoder,
including an electric motor having a motor housing, and
an encoder for detecting the rotation angle of the output
shaft of the electric motor. The encoder includes a
frame member attached to the motor housing in a
conductive manner, a circuit board supported on the frame
member and a detection circuit provided in the circuit
15 board. The assembly of electric motor with encoder
further includes an output signal cable connected to the
circuit board of the encoder and including a signal wire
and a shield member, and a grounding mechanism
electrically connecting the shield member of the output
20 signal cable to the motor housing for grounding purposes.
The grounding mechanism includes a conductor patterned on
the circuit board, a first connecting structure mutually
connecting the conductor to the shield member, and a
second connecting structure mutually connecting the
25 conductor to the frame member. The second connecting
structure includes a through-hole plating provided in the
circuit board to be connected to the conductor, and a
fastening element inserted into a through hole having the
through-hole plating and securing the circuit board onto
30 the frame member. When the fastening member is fastened,
the through-hole plating comes into conductive contact
with the frame member.